UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/697,492	10/27/2000	Pascal Lefebvre	Q61274	3518

7590   03/25/2005

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EXAMINER
PHAN, MAN U

ART UNIT	PAPER NUMBER
2665	

DATE MAILED: 03/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/697,492	LEFEBVRE, PASCAL
	Examiner	Art Unit
	Man Phan	2665

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _03 January 2005_.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-4 and 8-12_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1,3,4,8-10 and 12_ is/are rejected.

7)☒ Claim(s) _2 and 11_ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILE ACTION

1.   This communication is in response to applicant's 11/03/2004 Amendment in the

application of Lefebvre for "A Telecommunication network and a method for controlling such

network" filed 10/27/2000. This application is a Request for Continued Examination (RCE)

under 37 C.F.R. 1.114 filed on January 03, 2005. This application claims foreign priority based

on an application filed in European Patent Office (EPO) 99402883.5 - dated 11/19/1999. The

proposed amendment to the claims and response have been entered and made of record. Claims

1-3, 8, 11-12 have been amended. Claims 1-4, 8-12 are pending in the present application.

       In view of applicant's amendment to amend the claim 2 to obviate the objection,

examiner has withdrawn the Objections of record.

       The rejection of record with respect to claims 1-3 and 11-12 under 35 U.S.C. § 112,

second paragraph are hereby removed based on applicant's amendment.

Claim Rejections - 35 USC ' 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

       (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth

       in section 102 of this title, if the differences between the subject matter sought to be patented and the prior

       art are such that the subject matter as a whole would have been obvious at the time the invention was made

       to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be

       negatived by prior art under 35 U.S.C. 103(a).

3.   Claims 1 and 8, 10, 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Aida et al. (US#6,212,163) in view of Dail et al. (US#5,953,344).

With respect to claims 1 and 10, Aida et al discloses a novel method and system for

managing traffic between endpoints of an ATM network, according to the essential features of

the claims. Aida et al. discloses a multiplexer (fig. 7, ATM exchanger) in which the user cells

are assigned a virtual channel (Fig. 7 see downward direction from user to receiving end user)

based on a given quality of service (Col. 5 lines 6- Col. 6 line 10) per the ATM standard.

Multiple virtual channels may share a virtual path as is known the art for ATM transmission.

Each virtual channel is assigned a buffer memory for the ATM cells to which assigned a priority

corresponding to the given quality of service (See Fig. 1 and Col. 5 lines 17-27). As examples of

connection admission control methods which perform processing in real-time, connection

admission control methods which can be applied to a single service category (especially those

assuming Variable Bit Rate) are commonly known. In these methods, traffic parameters (peak

cell rate and sustainable cell rate) reported from users are taken as inputs, and connection

admission processing is performed within a standard period of time without depending on the

number of calls or the traffic conditions. These methods are applied for each VP, and are carried

out in the connection admission control section 1' shown in Fig. 7 by means of the flow

procedure shown in Fig. 8 (Col. 1, lines 23 plus).

It's noted that ATM is an International Telecommunication Union-Telecommunication

Standardization Sector standard of switching and multiplexing for high-speed broadband digital

transmission where data bytes are organized into cells with a fixed length (ITU-T

Recommendation I-150). ATM allows the use of multiple data streams to flexibly share the

available bandwidth while providing a predetermined quality of service to each CPE. ITU-T

Recommendation G.983.1 defines a standard for passive optical networks (PONs) in which

fixed-size ATM (Asynchronous Transfer Mode) cells are used for all data transmissions. In an

ATM network, fixed-size packets of data, known as "cells" (53 byte), are transferred between

ATM switching devices ("switches"). An ATM cell includes a virtual circuit identifier (VCI)

and virtual path identifier (VPI) that identifies a bi-directional route (a "virtual circuit") between

ATM network switches. Virtual circuits (also referred to as "virtual channels") provide the basis

for both switching and multiplexed transmission. Routing of data frames between nodes can be

achieved by identifying a virtual circuit and/or virtual path in the data frame's route designation

information, converting the data frame to ATM cells, routing the cells through an ATM network

using the identified virtual circuit and/or virtual path, and reassembling the cell into a data frame

prior to delivery of the data frame to its destination. The use of an ATM network in the routing

of data frames may be transparent to the nodes generating the data frame.

However, Aida does not disclose expressly the step wherein a downward data rate from

the ATM network to the users is greater than an upward data rate from the users to the network.

In the same field of endeavor, Dail et al. (US#5,953,344) teaches in Fig. 2 illustrated the format

of the information in both upstream and downstream cells, in which the downward data rate from

the network to users greater than the upward data rate from the users to the network (See also

Figs. 4 & 5; Col. 5, lines 39 plus).

Regarding claims 8, 12, they are method claims corresponding to the apparatus claims 1, 10 above. Therefore, claims 8, 12 are analyzed and rejected as previously discussed with respect to claims 1, 10.

One skilled in the art would have recognized the need for increase the system performance and improving system bandwidth utilization, and would have applied Dail's teaching of the bandwidth allocation to a downward virtual path while holding the upward path to a fixed bandwidth to support asymmetrical bandwidth situation and managing QoS requirement into Aida's novel use of a the multi-class ATM connection admission control. Therefore, It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to apply Dail's method and apparatus enabling enhanced throughput efficiency by use of dynamically adjustable mini-slots in access protocols for shared transmission media into Aida's method and device for multi-class ATM connection admission control with the motivation being to provide a method and system for managing the available network bandwidth more efficiently for situations requiring asymmetrical bandwidth.

4.   Claim 3-4, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aida (US#6,212,163) in view of Dail et al. (US#5, 953,344), as applied to the claims above, and further in view of Chiu et al. (US#6,597,689).

Regarding claims 3-4, these claims differ from the claims above in that the claim requires the use of Switched Virtual Circuits (SVC) and Permanent Virtual Circuits (PVC). In the same field of endeavor, Chiu et al. teaches the use of PVCs and SVCs for setting up virtual connections in an ATM network to meet the QoS requirements, and for networks with

asymmetrical user bandwidth requirement (Col. 7, line 22 – Col. 8, line 60). These methods

have the advantage of increasing the system performance by improving system bandwidth

utilization.

Regarding claim 9, It's a method claim corresponding to the apparatus claims 3-4 above.

Therefore, claim 9 is analyzed and rejected as previously discussed with respect to claims 3-4.

One skilled in the art would have recognized the need for increase the system

performance and improving system bandwidth utilization, and would have applied Chiu et al.'s

teaching of the SVCs and PVCs signaling system, and the Dail's upstream and downstream

bandwidth allocation into Aida's novel use of a the multi-class ATM connection admission

control. Therefore, It would have been obvious to a person of ordinary skill in the art at the time

of the invention was made to apply Chiu's SVC signaling system and method, and Dail's method

and apparatus enabling enhanced throughput efficiency by use of dynamically adjustable mini-

slots in access protocols for shared transmission media into Aida's method and device for multi-

class ATM connection admission control with the motivation being to provide a method and

system for improving the system performance through the use of SVCs to dynamically assign

bandwidth as needed to meet the QoS requirement.

Allowable Subject Matter

5.   Claims 2 and 11 are objected to as being dependent upon a rejected base claim, but would

be allowable if rewritten in independent form including all of the limitations of the base claim

and any intervening claims.

The following is an examiner's statement of reasons for the indication of allowable

subject matter: The prior art of record fails to disclose or suggest wherein the call control means

is provided with a memory containing information representing a maximum bandwidth allocated

downwardly to each user and representing a bandwidth allocated downwardly to one or more

interfaces, between the users'multiplexer and the switching node, the call control means using

information to limit the bandwidth allocated to each user to its authorized maximum, and to limit

a total bandwidth allocated to the downward virtual paths to a value not greater than the

bandwidth of the one or more interfaces, as specifically recited in claims 3-4 and 20-21.

Conclusion

6.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

Ghaibeh et al. (US#5,978,374) discloses a protocol for data communication over a point-

to-multipoint passive optical network.

Proctor (US#5,872,645) discloses a telecommunications network.

Proctor (US#6,426,964) discloses a telecommunications access systems and equipment.

Furukawa et al. (US# 6,167,095) discloses a method and apparatus for variably allocating

upstream and downstream communication spectra.

Steeves et al. (US#6,212,185) discloses a multiple network address resolution.

Dail et al. (US#5,570,355) discloses a method and apparatus enabling synchronous transfer mode and packet mode access for multiple services on a broadband communication network.

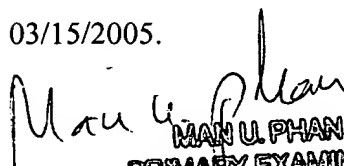Suzuki (US#6,529,479) discloses a SVC accessing method for use in ATM-DSLAM..

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. Phan whose telephone number is (571) 272-3149.

The examiner can normally be reached on Mon - Fri from 6:00 to 3:00 EST. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu, can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have any questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at toll free 1-866-217-9197.

Mphan

03/15/2005.

MAN U. PHAN
PRIMARY EXAMINER